

Abstract of the Disclosure

In an electromagnetic flowmeter, a fluid to be measured flows through a measuring pipe. An electrode in the measuring pipe detects an electromotive force generated by a magnetic field applied to the fluid and flow of the fluid. A first exciting coil applies a first magnetic field having a first frequency to the fluid. A second exciting coil applies, to the fluid, a second magnetic field obtained by amplitude-modulating a carrier having the first frequency by a modulated wave having a second frequency. A power supply section supplies an exciting current to the first and second exciting coils. A signal conversion section separates the component of the first frequency from the electromotive force to obtain an amplitude, separates one of the components of sum and difference frequencies of the first and second frequencies from the electromotive force to obtain an amplitude, and obtains an amplitude ratio. A flow rate output section calculates the flow rate of the fluid on the basis of the amplitude ratio.